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# Practical Talk to Farmers.

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Practical Talk to Farmers.

AN

ADDRESS

BY

B. W. CHIPMAN,

SECRETARY FOR AGRICULTURE

FOR

NOVA SCOTIA.

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## FARMING IN NOVA SCOTIA.

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The following is a report of an Address delivered by Mr. B. W. Chipman, Secretary for Agriculture for Nova Scotia, at a meeting of the Nova Scotia Farmers' Association, held at Mabou, Inverness County, on the 30th of June, 1896.

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## PRACTICAL TALK TO FARMERS.

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It affords me a great deal of pleasure to make my first official visit in this part of the province, and yet I assure you it is not without some embarrassment, following as I do as Secretary for Agriculture, so eminent a man as the late Professor Lawson. He was an agriculturist by birth, education and practice, and he grew up with, or rather advanced agriculture grew with him, for a period extending over nearly 30 years. He was a scholar and a gentleman, and all who had the pleasure of his acquaintance knew the value of his agricultural knowledge. If I can, only in a measure, give that general satisfaction, I shall have accomplished much. I have been impressed for a long time with the fact that if this country is to be made a country worth living in, it is by prosecuting her great agricultural pursuits, while we have the advantage of a greater variety of magnificent natural resources than any other province in the Dominion. We have great wealth in our mines and minerals and our forests and fisheries, but our agricultural resources

ARE MORE VALUABLE THAN THEM ALL.

Take the marvellous growth of the fruit industry in the Annapolis Valley, so called, the valley extending between

Windsor and Annapolis, a distance of about 60 miles. In passing through that valley a few weeks ago I was struck with the enormously increased cultivation of fruit in the last 30 years, having resided there previous to that time. Then the largest orchards did not cover more than three acres, and few, if any, farmers produced more than 100 barrels for shipping. At the present time numbers of orchards are covering 10, 20, 30, 40, 50 and some as high as 100 acres of ground, and still they are planting. It is not too much to prophesy that the young men of the present generation will see that whole valley a vast orchard of apples, plums and peaches, combined with a large growth and cultivation of all the smaller fruits. It is strange, too, that prices 30 years ago seldom reached more than \$1.50 per barrel for apples, while last season the crop reached nearly one half a million barrels and the prices realized about double what they did in those days. Now, while the portion of the province to which I refer has made the most rapid strides, what have we done in the other great branches of agriculture, viz., stock raising and dairying? Thirty years ago the cities of Halifax and St. John, as well as the smaller towns, were supplied with their beef, pork, mutton and poultry by the farmers of Nova Scotia; to-day a large part of these articles are imported from the other provinces. Surely this is wrong. With our splendid grazing country and soil well calculated to raise all the coarser grains, we should not only supply our own market with beef, mutton and poultry, but we should take a share in the export trade of Canada. England is a large importer of meat and provisions of all kinds. In 1884 Canada exported to Britain 82,217 head of cattle, 121,304 head of sheep, 7,707 cwts. of pork, 254,442 cwts. of bacon, and 50,576 cwts. of ham. In 1895 cattle increased to 96,460 head, and sheep to 215,508 head. All these shipments were from Ontario and Quebec,—not a dollar's worth from Nova Scotia. In 1895 England imported cheese to the value of



\$26,000,000. Of this amount the Upper Provinces supplied \$16,000,000 worth, but little or none came from Nova Scotia. In 1895 England imported \$65,000,000 worth of butter, of which only one and a half million dollars were shipped from the Upper Provinces and none from Nova Scotia. Surely it is time to wake up and make a commencement in the production of these great articles of consumption.

Fifteen years ago Denmark was the most depressed agricultural country in the world, and last year she exported 54,000 tons of butter. I have hurriedly given you a few important facts with an endeavor to stimulate the farmers of this country to greater efforts, and have placed on paper a few ideas on modern farming.

#### THE MODERN FARM, STOCK RAISER AND DAIRY.

At the age in which we are now living, when knowledge of the most improved and modern methods of farming is so easily obtained and within the reach of all, every farm, large or small, be the owner rich or poor, should have a neat, comfortable and prosperous appearance to the traveller who passes by. Buildings need not be expensive, but with lumber and all material so easily obtained, and prices low, I see no reason for dilapidated and weather beaten houses and barns even on the smallest farms. If the owner is not able to purchase paint, a dollar's worth of lime and a few days labor will give a neat and tidy appearance to the outbuildings and fences.

In passing through many counties, or portions of every county in the province, I have noticed with feelings of pain and regret how many farms have been allowed to deteriorate in value for the want of proper cultivation and care. Parts growing up to bush, and acres and acres of good land that might be producing hay and pasturage standing with

a poor growth of wood and brush, yielding no return. No farmer, rich or poor, but should find time during the year to bring into cultivation at least one acre and more if he can, each improved acre yielding a return, and help to improve other acres and so keep on adding to the value and productiveness of his farm. We cannot afford to have large wastes of land giving no return. I am convinced that the one cause, or at least the principal cause, of our not advancing or making such advances in agricultural pursuits as the opportunities at our disposal require, or keeping pace with other provinces of the Dominion, having no greater natural advantages—the one great cause I maintain is that we are purchasing from outside the province too much and producing too little at home. One acre of land will produce all the potatoes and other vegetables required for an ordinary sized family for one year. Then why should not every farmer raise all his own vegetables, and have some to sell; raise all his own oats, barley, peas and beans, and have some to sell; all his own fruit, and possibly have some to sell; all his own butter, eggs, cheese and poultry, and have some to sell; all his own beef, pork and mutton, and have some to sell; and our large farmers, by keeping improved breeds of cattle and sheep and hogs maturing young, not only supply our own market, but take a share in the export trade to Great Britain as well as Ontario and Quebec? It is a well known fact that pounds of beef, pork and mutton can be laid on young animals cheaper than old ones; hence a corresponding increased profit. In beef breeds we have the Short Horns, Polled Angus and Herefords. Either of these breeds can be made to weigh from 1,200 to 1,500 lbs., live weight, at 20 to 30 months old; thus it can be easily seen that the earlier we get our steers to market, the more clean money we make. Having briefly given a few hints on farming and stock raising, I will now pass on to what I have a more practical knowledge of, from ten years' experience.

## THE DAIRY.

First, the barn, to make the dairy profitable, must be warm and convenient, in order that the cows can be made to produce milk and butter instead of a large portion of their feed being consumed for animal heat. Time, with man, represents money ; therefore, all arrangements for feeding, watering and care of the cow should be done with the least labor and quickest despatch. Having arranged the barn and dairy according to the size of the farm and number of cows, the first and most important starting point is, that the cow must be the best ; second, keeping and feeding to the best advantage ; third, the most profitable way of caring for and marketing her product.

On the choice of your dairy cow depends the whole success of the dairy. You would not now undertake to plow with the old wooden plow your forefathers used, or hoe potatoes with the hoe made by the blacksmith for your fathers, and the most unprofitable tool on the dairy farm is a poor cow. It is not only that she is no profit ; that would be bad enough, but far worse than that, she runs you into debt. If a man keeps one cow and she is a poor one he soon finds it out and will get rid of her, but in a herd a cow may look well and even give a fair flow of milk, and yet she may not only fall short of paying her own keep, but be eating up the profit made by her neighbor ; so the farm has no profit on the pair, and so on ; hence the importance in the dairy of testing all cows and weeding out, or killing all inferior animals, as the poor cow is not only deteriorating and becoming of less value as years go by, but is transmitting her worthlessness to the direct loss of her owner. The form of a dairy cow is so well known to most of you that it is scarcely worth while mentioning it, but some points are so necessary to a perfect cow that they cannot be too strongly urged. A good cow must be long, level, with

capacious body, long, light neck, thin withers, deep flank and rich, soft mellow skin, showing deep orange color under white marking and inside ear. As viewed from the side, she should be a perfect wedge shape, deep behind and light in front, and viewed from behind must show ample room to carry a large full udder with ease. No cow can do this that is of a beefy formation. The udder must extend well forward and reach well up behind, square, level and not too deeply quartered, with teats of good size, evenly placed and apart. The udder must be large and handsome when full, and when empty loose and soft and milk out to nothing. Taking the common cows in the country as a basis you pay \$30 for a cow that runs you \$30 in debt by the end of the year, and gives you a calf no better than herself. It is a poor investment, but on the other hand if you pay \$50 for a cow that makes you \$30 profit at the end of the year, as such a cow will and should do, and gives you a calf still better than herself, you have made a good investment. If you get \$5 a year for \$50 cash investment it would be called usury, but from a good cow costing, say \$50, you can easily make \$25 besides her keep, and you spend no more time in milking and feeding the good than the poor cow. It is easy to see how much more profit is gained by starting right. If you go a little higher and begin with a pure bred registered cow, the first cost will be more, but she will yield you even better interest on your money, while her offspring will be worth more than double of any unregistered animal. Having started with the right cow, and assuming it is butter you are going to make, I will next speak on the cow and general management of the dairy.

#### FEEDING CATTLE.

Beginning with the feed, first cut all your hay, thus saving one quarter if not one third. The cut hay should be wet and

mixed with the grain and feed, and at regular times, morning, noon and night. I prefer the three feeds, although some good authorities say the same quantity fed in two feeds gives just as good results. My way is to begin, say, at 5 o'clock, a. m., clean out the stable, brush off the cow, rubbing the udder with a soft cloth; if necessary to wash the udder do it with tepid water and be careful to dry it well; then give the morning feed. A good all round ration in this Province, and the most of it can be raised on the farm, is, according to the cow, say 15 to 20 lbs., cut hay, wet and mixed with 5 to 6 lbs. of grain, oats, peas and barley, and 3 to 4 lbs. bran, middlings and a little salt; the above feed at three feeds, if you have ensilage one feed, say 30 lbs., reducing your cut hay and meal one third.

Between 10 and 11 a. m. we water, if fine, outside, if cold, inside; and I am inclined to think the time is not far off when milch cows will be fed and watered in the stable from fall until spring. After the morning feed begin the milking with the same cows and at the same time, thus ensuring regularity with the same milkers to the same cows, and all treated with the greatest kindness. After watering in the forenoon every animal has a thorough carding and brushing. This is most important, not only for the health and comfort of the cow, but for cleanliness in milking. If the cow is not kept well groomed, the dirt dries into the hair and then the act of milking shakes it down like dust into the pail, rendering the milk unfit for human food. For bedding I find nothing equal to sawdust; nothing else will absorb so much of the valuable plant food in the liquid manure as sawdust. I know this from ten years' actual experience. If you are not near enough to the saw mill, the next best thing is dried muck or cut straw, barley or pea straw preferred. In the pasture, unless you have good warm clusters of trees, a pasture shed should

be provided. When, as is often the case, the pasture is some distance from the barn, and there is no shelter, cows are compelled to be in the cold rain from morning till night. All this means not only discomfort to the cows, but a loss to the owner, for food that should go to make milk goes to keeping the cows warm. This has often been noticed during cold, rainy spells when it shows in the milk pail. It is not necessary to go to great expense; a pole shed with a cover of straw will answer every purpose. A shed of this kind answers another purpose. Cows fall off in their milk yield just as much in hot weather as in cold, and one way of checking this is to provide a comfortable place for the cow to escape the heat of the day. I have said but little about the importance and value of the silo. From eight years' experience I am convinced that more feed and better feed for the dairy can be taken from an acre in corn silage than from any other crop, and for confirmation of this I will read a few extracts from late writers on the silo of well known authority:—

W. D. Hoard, Ex-Governor of Wisconsin and editor of *Hoard's Dairyman*, writing on ensilage, says:—"Let me say at the outset, that the question is hardly one of latitude or climate. It is a question of storing and feeding. Here in Wisconsin, we are fast coming to the conclusion that the most costly of our feeds is pasturage. The economy of practice must be measured by results obtained, and wisdom of expenditure. Measured by these considerations, pasturage milk costs us more than any other, taking into consideration the fact that the average acre of the best pasture will not produce more than 1,300 to 2,000 pounds of milk, while an acre of corn fodder put in a silo will easily produce 8,000 to 10,000 pounds. We find that corn fodder is the most easily, cheaply and safely handled in the silo. The damage from the elements in dry curing is very great, and there is added the loss or waste in feeding.

The silo, practically, is a substitute for pasturage so far as the succulence of the food and quick digestibility is concerned, without its expense. Every year in Wisconsin witnesses the increase of those who believe and practice a partial soiling at least, and they do it through the silo. Now if it is of the highest economy for us to own no waste land, or land which yields a low return; if it is of the highest economy for us to get the largest return possible for the value of the food consumed; if it is of the highest economy for us to put our land in the most effective shape possible for the use of our animals, does not the same economy appeal to you as powerful as it does to us?"

The New York Geneva experiment station has found corn silage the best for milch cows. They say that after several experiments it was found to increase the milk flow and at the same time to increase the amount of butter fat.

At the relative prices ordinarily holding for different foods, milk was generally produced at lower cost, and the cost of fat production was lower when corn silage constituted part of the ration than when many other rations were fed.

Another eminent authority says:—Silage may be fed with advantage to all classes of farm animals, milch cows, steers, horses, mules, sheep, swine, and even poultry. Neither does this enumeration finish the list of animals that take readily to silage. Kuhn states that not only did the various European breeds of cattle in the herd of the Agricultural College of Halle (Germany) eat corn silage with a relish, but this was also the case with the long-horned Sanga, directly imported from Africa; the Yak, a native of the plains of Central Asia; and the crosses of Yak and Gayal. The corn silage was also eaten by all of the common breeds of sheep, and by the Asiatic and African breeds; the fine-wooled Electoral, Negrettis, and Rambouillet, especially, took to it kindly. The Mouflon

crosses also ate it, but less readily. It was liked by goats, and especially by those of the Angora breed. The same was true of the asses and the mules bred at the Halle College.

Silage should not be fed as an exclusive coarse feed to farm animals, but always in connection with some dry roughage. The nearer maturity the corn is when cut for the silo, the more silage may safely be fed, but it is always well to avoid feeding it excessively.

The silo should always be emptied from the top in horizontal layers, and the surface kept level, so as to expose as little of the silage as possible to the air. It should be fed out sufficiently rapidly to avoid spoiling of the silage; in ordinary northern winter weather a couple of inch layer should be fed off daily.

Silage is par excellence a cow feed. Since the introduction of the silo in this country, the dairymen, more than any other class of farmers, have been among the most enthusiastic siloists, and up to the present time we find a larger number of silos in dairy districts than in any other regions where animal husbandry is a prominent industry. As with other farm animals, cows fed silage should receive other roughage in the shape of cornstalks, hay, etc., The quantities of silage fed should not exceed forty or, at the outside, fifty pounds per day per head.

#### CARE OF THE MILK.

Next after milking is the care of the milk. The shallow pans for setting milk have become a thing of the past, and there we leave the old tin pans and speak of the deep setting creamery submerged in ice cold water for 12 hours; then drawing off the skimmed milk, leaving the cream to be put in its proper vessel for ripening for the churn, and what a saving



of labor in washing pans and so forth. But this greatly improved and labor saving system did not come to stay. It is now fast being superseded by the separator. The hand machine will pay well if you have from five to ten cows; more than that you should have a power separator; we with 30 cows use the small power separator; in 20 minutes after the last cow is milked the cream is in one vessel to be taken to the dairy to ripen for the churn, the warm skimmed milk is fed to the calves, and they cannot tell it from new milking, all without the aid of woman. On churning days, with the barrel churn and power to work it and the butter worker, men can manage the dairy and churn out butter far superior to the old fashioned way with shallow pans, dash churns and women's hands to work it. So instead of making slaves of women, the modern mode of separator, churn and butter worker, by power and with men, leaves the women free from toil and drudgery, ready and willing to take gentle exercise with the new found pleasure, "the bicycle."

The butter being properly made from the cream ripened to an even state and at the right temperature, salted by the same rule at every churning, should always be put in packages of a uniform size for the English market, and here is where we must look for a market for our surplus produce of every kind. Fifty lb. packages are as saleable as any; for our local market, of course, smaller packages should be used. Our farmers must expect and prepare for keener competition in prices in the future, even more than in the past. To meet this we must keep pace with the times, as manufacturers are improving their machinery by all modern inventions until the cost of production is reduced to the very lowest point. A few years ago horse nails were made by being hammered out singly, and ordinary cut nails were made by a machine which took one man ten hours to cut a keg of nails, 100 lbs. and now one boy

can tend six machines, thus making six nails in half the time it took to make one before. This brings me back to

#### THE DAIRY COW.

She is a factory for turning out goods; the average scrub cow is putting only 3,500 lbs. milk a year into the dairy. It costs a farmer about \$35 a year to run that machine, and if sold at a good price for butter or cheese the profit is on the wrong side. This is easily changed and the profit put on the right side by weeding out the poor cow; and by judicious selecting and breeding and feeding your cow you can get cows to yield not 3,500 lbs., but 7,000 to 10,000 lbs. per year, thus saving, at least, one half your feed. We must study the breeding and care of this butter and cheese producing machine. It is true that during the last few years we have made some progress in this important industry, but there is room for almost unlimited production of butter and cheese. England imports annually of butter \$65,000,000 worth, and so far Canada has supplied less than \$2,000,000, worth of it. In cheese we are doing better; last year of the \$26,000,000 worth of cheese imported into England Canada supplied \$16,000,000 worth. I think now is the time for Nova Scotia farmers to wake up and take part with Ontario and Quebec for a share in this great English market, and having decided to manufacture butter and cheese, you have little trouble in securing the cow. The Jersey, Guernsey and Ayrshire are the great dairy breeds. The Ayrshire has long had a reputation as a large milker and a superior cow for the production of cheese. The Guernsey is a large and rich milker, and for butter stands next to the Jersey. I have some delicacy in speaking of the Jersey, of her merits as a butter cow, for fear of giving an impression that I was trying to advertise; but I assure you I have no Jersey cows to sell and would rather buy two good ones than sell one; but from long

study of the Jersey cow, as well as ten years' actual experience in her wonderful power to produce, as a butter cow I have no hesitation in saying she stands peerless above all other breeds. The origin of the Jersey is unknown. She is supposed to have existed as a pure breed since the date of the Norman conquest; but be that as it may she has an unbroken record for over 500 years, and it is undeniable that nearly 200 years ago her characteristics were so thoroughly and persistently fixed and passed with such certainty to her offspring, and she had to the inhabitants of the Island of Jersey so completely demonstrated her superiority as a butter maker, that they were not satisfied to remain with no other protection against the introduction of inferior blood than was offered by the fence of the sea, but a stringent law was passed prohibiting the importation into Jersey of a cow, heifer, calf or bull, and to this day no foreign cattle are allowed to be landed on the island. That she has been bred for so many years as a profitable butter cow, bred for a purpose, and that a special purpose, butter, demonstrates that it is a delusion to compare her with what is called a general or all purpose cow. The cow for the dairy cannot under any circumstances be selected for those qualities which will produce fat. The two natures are incompatible. To have the best meat we must get rid of every tendency to milk, and to have the best butter we must obviate every disposition to fatten; we cannot have both qualities in the same animal, or to state it more concisely the fat from the food cannot be deposited in two places at the same time. We cannot look for it in both flesh and milk. The practical butter makers of the Island of Jersey knew this, and did not attempt to produce the improbable general purpose cow.

#### THE VALUE OF THE JERSEY.

Pages—yes, quires—could be written on the wonderful production and qualities of the Jersey cow, but I must not

enlarge. It was not until 1850 that the first Jersey cow was imported into the United States, and long after that into Canada. It was first thought to be a doubtful experiment to bring the celebrated butter cow from her warm island home, but it has become a well known fact that since transplanting her in the New England states and Canada she has developed a butter record unknown on the island of Jersey, producing as high as 36 pounds of butter in one week, and over 900 pounds of butter in a year. But she achieved her last and greatest victory over the other breeds at the World's Fair in Chicago, 1893, with various tests extending over 90 days with all other breeds, for both butter and cheese, with the following results. Taking each separate test, and taking all of them in the aggregate, the results conclusively show that the Jersey—

- 1st. Gave more milk.
- 2nd. Made more cheese.
- 3rd. Made more butter.
- 4th. Gave more solids other than butter fat.
- 5th. Required less milk to make a pound of cheese.
- 6th. Required less milk to make a pound of butter.
- 7th. Produced a pound butter at least cost.
- 8th. Made cheese of a higher quality.
- 9th. Made butter of a higher quality.
- 10th. Demonstrated their ability to properly assimilate a greater quantity of food and return a net increased profit.

The tests proved these facts, and in proving them gave the stamp of publicity and authenticity to the Jersey cow as the greatest butter cow in all essentials that the world has ever produced.

I have given you my views hurriedly and with but little time for preparation, and have no desire or inclination to urge them upon others. I know there are hundreds, yes, thousands

of dairymen in this province, in this year 1896, who will say that other breeds, on the whole, are preferable to the Jersey. I have no personal desire to change that man's mind, and I have only one request to make, that in order to obtain the full value of his butter, that he will stamp the butter or package with the name of the breed from which it is made, whether Holstein, Ayrshire, Short Horn or scrub, and not use an article manufactured in the States called butter color, which I saw advertised in an American paper as being so perfect in color and harmless in taste, that the Jersey cow herself could not tell it from her own.

#### ADVICE TO YOUNG MEN.

Before closing let me say a few words to the young men in order to arouse them to an effort to elevate the standard of the agriculturist in this province. An old Roman poet who lived before the birth of Christ said, "Time spent in the cultivation of the fields passes very pleasantly," and all through the early ages tilling the soil was regarded as one of the most ennobling pursuits of man, but if so regarded in days gone by when but the crudest tools were known, when the inventor had done little to lighten the labor of those who bore the burden and heat of the day, surely the cultivation of the land in our day must be esteemed a delightful occupation, and so it is. Healthful, ennobling, invigorating, and scientific, with implements of all kinds to make easy what was before drudgery, the tilling of the soil has become an art worthy of our best men. The ancient Romans esteemed two occupations and placed them higher in the social order than all others, they were military service and agriculture. All other labor was assigned to slaves, while the man who tilled the soil was as much respected and stood as high in the social scale as his brother in a government office or in the military service.

Ancient Rome was right, for the prosperity of a nation is dependent on her agricultural resources and her agriculturist. As our farming methods improve, and our farmers become more scientific and skillful, our country will progress and achieve great renown among the nations of the world ; so it has been and so it will be. While inventive genius has been busy in devising ways and means to lessen and facilitate man's labor, the agriculturist has received the highest consideration. No kind of labor was formerly more arduous and full of drudgery than the work on the farm. This is now materially changed ; the term farm implements once included little more than the scythe, sickle, shovel and rake, and the farmer was in every sense a laborer. To-day the farmer is an engineer, for the well equipped farm is provided with a score of modern implements, and often a steam engine. The successful farmer of the present day is a man of enterprise, broad, intelligent, educated, and destined to command the honor and respect of his country. Young men should look to agriculture as a profession, worthy of their greatest efforts.

I regret in passing through many parts of the country to find farms vacant, young men having left the country, population in some of the counties having fallen off very materially. Various causes are assigned for this, and I am not going into any discussion of the point raised. Governments, both local and Dominion, have done and are doing much to encourage agriculture, but the farmer must not depend upon government aid. He must rely mainly upon his own individual efforts, and by his example encourage his sons to take a warmer interest in the cultivation of the soil. Has he done all he could to keep the young men at home ? Has he given them all the encouragement on the farm that they require ? It strikes me very forcibly that going back as far as forty years ago if the farmer of that day had divided his farm with his sons.

and they in turn divided again, each piece to-day would have been worth more than the whole, and our population largely increased. Instead of that, men allow their sons to go to the United States and their farms to go to bush or deteriorate and become waste land. I ask the young men of the present day to look upon agriculture as a profession worthy of their best efforts, and if they take hold of it with that energy and perseverance that merchants and manufacturers require to put into their business in order to compete with the keen rivalries of the age, they will succeed.





